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10/806,420	03/23/2004	Dong-yun Shin	Q79712	2277

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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RIYAMI, ABDULLA A

ART UNIT	PAPER NUMBER
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2609

MAIL DATE	DELIVERY MODE
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08/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/806,420

Applicant(s)

SHIN ET AL.

Examiner

Abdullah Riyami

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/23/2005, 7/19/2006. ✓
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Abstract**

1. The abstract of the disclosure is objected to because the phrase "are disclosed" is improper language, since it is a phrase that implies.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

### ***Drawings***

3. The drawings are objected to because for figure 2, figure 4, figure 5, figure 6, figure 7, figure 8a, figure 8b, figure 9, figure 10 and figure 11 reference numbers are needed for the each block in addition to the descriptive legends, for complete clarity. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

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of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Claim Objections***

5. Claim 1 is objected to because of the following informalities:

In claim 1, line 7, the occurrence of "each access point" seems to refer back to "each access point" as recited in line 4. If this is true, it is suggested to change "each access point" to --each said access point--.

Claims 2-9 are objected to because they are dependents on claim 1, respectively. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Yano et al. (US 7123599 B2).

In claim 1, Yano et al. discloses a wireless local area network system (see figure 1), comprising: a gateway (see figure 1, block 101) performing functions of a home agent (see figure 1, block 101) in a mobile wireless communication environment (see figure 1) and sending prefix information (see column 3, lines 4-10 and column 6, lines 51-60); and one or more access points (see figure 1, block 105), each access point allocating an Internet Protocol (IP) address (see column 3, lines 14-19) to a mobile host (see column 3, lines 20-27) in a

management range thereof (see column 8, lines 66- 67 and column 9 lines 1-2) by using the prefix information of the gateway (see column 3, lines 14-19), wherein each access point produces and sends a Binding Update list (see column 8, lines 62-67 and column 9, lines 3-10) corresponding to the mobile host to the gateway (see column 9, lines 3-10).

In claim 2, Yano et al. discloses a wireless local area network system (see figure 1), wherein when a packet (see column 5, line 60) is sent from a correspondent node to the mobile host (see column 5, lines 57-60), the gateway encapsulates (see column 5, lines 53-63) a header portion of the packet with a source address and a destination address (see column 4, lines 6-15), and an access point corresponding to the destination address decapsulates (see column 2, lines 14-21) the encapsulated packet (see column 2, lines 14-21) sent from the gateway (see column 2, lines 14-21).

In claim 3, Yano et al. discloses a wireless local area network system (see figure 1), wherein when a packet (see column 5, line 60) is sent from the mobile host to a correspondent node (see column 6, lines 17-22), the access point defining the management range (see column 6, lines 17-20 and column 7, lines 59-63) of the mobile host encapsulates a header portion of the packet with a source address and a destination address (see column 4, lines 6-15 and figure 10) and sends the encapsulated packet (see column 5, lines 53-63 and column 6, lines 17-22).

In claim 4, Yano et al. discloses a wireless local area network system (see figure 1), wherein the gateway (see figure 1, block 101) manages one or more access

routers (see figure 1, block 106), each access router manages one or more access points (see figure 1, block 104), and each access point manages one or more mobile hosts (see figure 1, block 105).

In claim 5, Yano et al. discloses a wireless local area network system (see figure 1), wherein the IP addresses for the mobile hosts have the same prefix information (see column 7, lines 26-27 and column 10, lines 41-45).

In claim 6, Yano et al. discloses a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host (see column 3, lines 14-19) within the management range of the access point.

In claim 10, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), comprising: sending prefix information of a gateway according to a request (see column 5, lines 53-56) of a mobile host (see column 5, lines 53-56) wherein the gateway (see figure 1, block 101) performs functions of a home agent (see figure 1, block 101) in a mobile wireless communication environment (see figure 1); and allocating an Internet Protocol (IP) address (see column 3, lines 14-19) to the mobile host (see column 3, lines 20-27) by using the prefix information (see column 3, lines 14-19); associating (see column 7, lines 26-33) the mobile host with an access point having a management range (see column 8, lines 66- 67 and column 9 lines 1-2) within which the mobile host is located (see column 7, lines 26-33); producing a Binding Update list for the associated mobile host (see column 8, lines 62-67 and column

9, lines 3-10); and sending the Binding Update list to the gateway (see column 9, lines 3-10).

In claim 11, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), comprising when a packet (see column 5, line 60) is sent from a correspondent node to the mobile host (see column 5, lines 57-60), encapsulating a header portion of the packet at the gateway (see column 5, lines 53-63) with a source address and a destination address (see column 4, lines 6-15) and sending the encapsulated packet; and decapsulating (see column 2, lines 14-21) a header portion from the encapsulated packet sent from the gateway (see column 2, lines 14-21).

In claim 12, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), comprising when a packet (see column 5, line 60) is sent from the mobile host to a correspondent node (see column 6, lines 17-22), encapsulating a header portion of the packet at the access point (see column 5, lines 53-63 and column 6, lines 17-22) with a source address and a destination address (see column 4, lines 6-15 and figure 10), and sending the encapsulated packet.

In claim 13, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the gateway (see figure 1, block 101) manages one or more access routers (see figure 1, block 106), each access router manages one or more access points (see figure 1, block 104), and each access point manages one or more mobile hosts (see figure 1, block 105).



In claim 14, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the IP addresses for the mobile hosts have the same prefix information (see column 7, lines 26-27 and column 10, lines 41-45).

In claim 15, Yano et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host (see column 3, lines 14-19) within the management range of the access point.

8. Claims 1-4, 6-13 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Takedo et al. (US 2004/0105420 A1).

In claim 1, Takedo et al. discloses a wireless local area network system (see figure 1), comprising: a gateway (see figure 1, block 10) performing functions of a home agent (see figure 1, block 10) in a mobile wireless communication environment (see figure 1) and sending prefix information (see prefix, paragraph 76, lines 1-7 and router advertisement message, paragraphs 99, 100 and 101); and one or more access points (see figure 1, block 3A or block 30x), each access point allocating an Internet Protocol (IP) address (see paragraph 102, lines 4-7) to a mobile host (see paragraph 102, lines 4-7) in a management range thereof by using the prefix information of the gateway (see paragraph 102, lines 4-7), wherein each access point produces and sends a Binding Update list (see

paragraph 97 and figure 6, block 381 and figure 7) corresponding to the mobile host to the gateway (see paragraph 97 and 103).

In claim 2, Takedo et al. discloses a wireless local area network system (see figure 1), wherein when a packet is sent from a correspondent node to the mobile host (see paragraph 78), the gateway encapsulates (see paragraph 78 and 23 and 9) a header portion of the packet with a source address and a destination address (see paragraph 23 and 78), and an access point corresponding to the destination address decapsulates (see paragraph 78 and 10) the encapsulated packet sent from the gateway (see paragraph 78).

In claim 3, Takedo et al. discloses a wireless local area network system (see figure 1), wherein when a packet is sent from the mobile host to a correspondent node (see paragraph 78), the access point defining the management range of the mobile host encapsulates (see paragraph 78, lines 9-10) a header portion (see paragraph 105) of the packet with a source address and a destination address (see paragraph 9, 10, 23 and 78) and sends the encapsulated packet (see paragraph 105).

In claim 4, Takedo et al. discloses a wireless local area network system (see figure 1), wherein the gateway (see figure 1, block 10) manages one or more access routers (see figure 1, block 2A), each access router manages one or more access points (see figure 1, block 3A), and each access point manages one or more mobile hosts (see figure 1, block 30x).

In claim 6, Takedo et al. discloses a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host (see paragraph 5 and 30) within the management range of the access point.

In claim 7, Takedo et al. discloses a wireless local area network system (see figure 1), wherein each access point (see figure 1, block 30x) includes:

an IP address generation unit (see paragraph 101, lines 1-12) for generating the IP address for the mobile host (see paragraph 101, lines 1-12) in the management range of the access point by combining the prefix information and a MAC address of the mobile host (see paragraph 101, lines 1-12); a binding cache for storing information (see paragraph 97 and figure 7) on the generated IP address and corresponding mobile host (see paragraph 97 and figure 7); and a Binding Update (BU) transmission unit (see paragraph 103 and figure 32B) for sending to the gateway the produced Binding Update list for the mobile host (see paragraph 103 and figure 32B).

In claim 8, Takedo et al. discloses a wireless local area network system (see figure 1), wherein each access point further includes a decapsulation unit (see figure 6, block 371) for decapsulating a source address and a destination address that are encapsulated with a header portion of a packet (see paragraph 78 and 10) sent from a correspondent node (see paragraph 78 and 10).

In claim 9, Takedo et al. discloses a wireless local area network system (see figure 1), wherein each access point further includes an encapsulation unit (see

figure 6, block 371) for encapsulating a header portion of a packet to be sent to a correspondent node with a source address and a destination address (see paragraph 78, lines 9-10 and paragraph 105).

In claim 10, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), comprising: sending prefix information of a gateway according to a request (see prefix, paragraph 76, lines 1-7 and router advertisement message, paragraphs 99, 100 and 101) of a mobile host wherein the gateway (see figure 1, block 10) performs functions of a home agent (see figure 1, block 10) in a mobile wireless communication environment (see figure 1); and allocating an Internet Protocol (IP) address (see paragraph 102, lines 4-7) to the mobile host by using the prefix information (see paragraph 102, lines 4-7); associating the mobile host with an access point (see figure 1, block 3A or block 30x) having a management range within which the mobile host is located; producing a Binding Update list for the associated mobile host (see paragraph 97 and figure 6, block 381 and figure 7); and sending the Binding Update list to the gateway (see paragraph 97 and 103).

In claim 11, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), comprising when a packet is sent from a correspondent node to the mobile host (see paragraph 78), encapsulating a header portion of the packet at the gateway (see paragraph 78 and 23 and 9) with a source address and a destination address (see paragraph 23 and 78) and sending the encapsulated packet; and decapsulating (see paragraph 78 and 10)

a header portion from the encapsulated packet sent from the gateway (see paragraph 78).

In claim 12, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), when a packet is sent from the mobile host to a correspondent node (see paragraph 78), encapsulating (see paragraph 78, lines 9-10) a header portion (see paragraph 105) of the packet at the access point with a source address and a destination address (see paragraph 9,10, 23 and 78), and sending the encapsulated packet (see paragraph 105).

In claim 13, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the gateway (see figure 1, block 10) manages one or more access routers (see figure 1, block 2A), each access router manages one or more access points (see figure 1, block 3A), and each access point manages one or more mobile hosts (see figure 1, block 30x).

In claim 15, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host (see paragraph 5 and 30) within the management range of the access point.

In claim 16, Takedo et al. discloses an operation method for a wireless local area network system (see figure 1), , wherein the mobile host association operation (see figure 1, block 30x) includes: generating the IP address for the mobile host (see paragraph 101, lines 1-12) in the management range of the access point by combining the prefix information and a MAC address of the mobile host (see

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paragraph 101, lines 1-12); storing information on the generated IP address and the corresponding mobile host (see paragraph 97 and figure 7); producing a Binding Update list (see paragraph 103) of the associated mobile host; and sending to the gateway the produced Binding Update list for the mobile host (see paragraph 103).

### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*		Document Number Country	Date MM-	Name	Classification
		Code-Number-Kind Code	YYYY		
*	A	US-2002/0057657 A1	05-2002	LA PORTA et al.	370/331
*	B	US-7,215,668 B2	05-2007	Saito, Shin	370/392
*	C	US-2004/0203740 A1	10-2004	Won et al.	455/426.1
*	D	US-2004/0205235 A1	10-2004	Matsuhira, Naoki	709/238
*	E	US-2004/0258008 A1	12-2004	Inoue et al.	370/312
*	F	US-2006/0013170 A1	01-2006	Shin et al.	370/338
*	G	US-7,039,035 B2	05-2006	Droms et al.	370/338

The references cited above all teach of a wireless local area network system capable of supporting host mobility and operation.

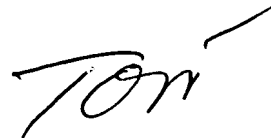
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdullah Riyami whose telephone number is (571) 270-3119. The examiner can normally be reached on Monday through Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR



DANG T. TON  
SUPERVISORY PATENT EXAMINER